

REMARKS

The Official Action mailed June 12, 2009, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on December 5, 2005; April 27, 2006; May 13, 2008; and September 30, 2008.

Claims 23-41 were pending in the present application prior to the above amendment. Although Boxes 4 and 6 of the Office Action Summary includes claims 1-22 in the list of pending and rejected claims, respectively, the Applicant notes that claims 1-22 were canceled without prejudice or disclaimer in the *Preliminary Amendment* filed on February 2, 2006 (received by OIPE February 3, 2006). Claim 41 has been canceled without prejudice or disclaimer. Accordingly, claims 23-40 are now pending in the present application, of which claims 23 and 34-38 are independent. Claims 23 and 34-38 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 1 of the Official Action objects to the title as not descriptive. Paragraph 2 of the Official Action objects to various informalities and inconsistencies in the specification. In response, the title and specification have been amended in accordance with the Examiner's suggestions. Paragraph 3 of the Official Action objects to claims 29 and 41 asserting that the claims "set forth identical subject matter" (page 3, Paper No. 200690611). In response, claim 41 has been canceled without prejudice or disclaimer. Accordingly, reconsideration and withdrawal of the objections are in order and respectfully requested.

Paragraph 5 of the Official Action rejects claims 37 and 38 under 35 U.S.C. § 101 asserting that "claims 37 and 38 are directed to non-statutory subject matter because

they set forth a computer program without being recorded in a computer-readable medium” (page 3, Paper No. 200690611). Also, the Official Action suggests that “Applicant should amend independent claims 37 and 38 to include a computer-readable medium having program instructions for storing a computer program” (*Id.*). In response, the Applicant has amended claims 37 and 38 to recite the following: “A computer readable medium recording a computer program, the computer program causing a computer to operate as:” Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 101 are in order and respectfully requested.

Paragraph 7 of the Official Action rejects claims 23, 35 and 37 as anticipated by U.S. Patent No. 6,446,041 to Reynar. The Applicant respectfully submits that an anticipation rejection cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Independent claims 23 and 37 have been amended to recite “wherein the missing part synthesis means has a second storage means for storing a plurality of pieces of data representative of one or more pitches of voice waveform fragments, the one or more pitches of voice waveform fragments being cut off in a unit of voice pitch from an actual speech waveform.” Similarly, independent claim 35 has been amended to recite “wherein the missing part synthesizing step stores a plurality of pieces of data representative of one or more pitches of voice waveform fragments using a second memory, the one or more pitches of voice waveform fragments being cut off in a unit of voice pitch from an actual speech waveform.” For the reasons provided below, the Applicant respectfully submits that Reynar does not teach the above-referenced features of the present invention, either explicitly or inherently.

Reynar relates to a text speech synthesis scheme and discloses a technique in which a plurality of pieces of voice word data corresponding to predetermined text words are stored beforehand in a memory, and several pieces of ones of the stored voice word data are linked to synthesize a speech signal corresponding to a sequence of words contained in a given text. Also, in this technique, as for any text word for which required voice word data is not stored in the memory, the text word is divided into a plurality of phonemes so that several pieces of voice data corresponding to respective phonemes are combined to synthesize the required voice word data.

However, Reynar is different from the present invention. For example, in Reynar, a basic unit of data for several pieces of data, which are interconnected to synthesize voice word data for any text word not having necessary ready-made voice data, is a phoneme such as /a/, /ka/, /ai/ or /an/. In contrast, in the present invention, if it is impossible (that is, voice data representing desired words are not acquired), such voice data is synthesized from voice waveform fragments (at voice pitch units), which are prepared beforehand.

This voice waveform fragment generally has an extremely short duration time (for example, approximately 1 to 3 ms) as compared to a duration time of any phoneme (for example, approximately 100 to 400 ms). Thus, the present invention's technique, which creates necessary voice word data by combining voice waveform fragments at voice pitch units having an extremely short duration time is essentially different from the technique of Reynar, which uses voice waveforms each corresponding to any phoneme having a relatively large duration time.

Therefore, the Applicant respectfully submits that Reynar does not teach the above-referenced features of the amended independent claims, either explicitly or inherently.

Since Reynar does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly,

reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

Paragraph 9 of the Official Action rejects claims 24-29, 34, 36 and 38-41 as obvious based on the combination of Reynar and "Kato et al. (EP '072)" (page 6, Paper No. 20090611). The Official Action states that "Kato et al. ('309) is the equivalent in the United States of Kato et al. (EP '072)" (page 9, *Id.*). Although U.S. Patent No. 6,823,309 to Kato is properly cited by the Examiner in Form PTO-892, Kato '072 was not of record in the present application, and Kato '072 was not cited by the Examiner on a Form PTO-892. The Applicant has determined that European Patent Application No. EP 1 100 072 to Kato is related to U.S. Patent No. 6,823,309 to Kato through a common PCT application, *i.e.* International Publication No. PCT/JP00/01870. Since the Official Action cites "Kato et al. (EP '072)" at pages 6-8, clarification of the record with respect to Kato '072 is respectfully requested. Specifically, if the Examiner intends to rely on Kato '072, then the Applicant respectfully requests that the Examiner properly cite Kato '072 on a Form PTO-892 and include a copy of the same in a subsequent communication, as required.

In any event, the Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally

available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Independent claims 34 and 38 have been amended to recite "a missing part synthesis means, for a speech word among the sentence information for which the selection means could not select the voice unit data, for synthesizing speech data representative of a desired speech waveform by mutually combining one or more pitches of voice waveform fragments cut off in a unit of voice pitch from an actual speech waveform." Similarly, independent claim 36 has been amended to recite "synthesizing a missing part, for a speech word among the sentence information for which the selection means could not select the voice unit data, by synthesizing speech data representative of a desired speech waveform by mutually combining one or more pitches of voice waveform fragments cut off in a unit of voice pitch from an actual speech waveform."

Please incorporate the arguments above with respect to the deficiencies in Reynar. Kato does not cure the deficiencies in Reynar. The Official Action relies on Kato to allegedly teach "choosing a voice unit from a plurality of alternative voice units that is associated with a desired reading of a speech word in the context of a sentence" (page 7, Paper No. 20090611). However, Reynar and Kato, either alone or in combination, do not teach or suggest that Reynar should be modified to include any of the features of the amended independent claims. Since Reynar and Kato do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 10 of the Official Action rejects claims 30-33 as obvious based on the combination of Reynar in view of Kato '072 and U.S. Patent No. 7,240,005 to Chihara. Please incorporate the arguments above with respect to the deficiencies in Reynar and Kato. Chihara does not cure the deficiencies in Reynar and Kato. The Official Action relies on Chihara to allegedly teach the features of dependent claims 30-33. Specifically, the Official Action relies on Chihara to allegedly teach "a method of controlling high-speed reading in a text-to-speech conversion system, where control factors are required to predict a duration length of each phoneme or word" (pages 8-9, Paper No. 20090611). However, Reynar, Kato and Chihara, either alone or in combination, do not teach or suggest that Reynar and Kato should be modified to include any of features of the amended independent claims. Since Reynar, Kato and Chihara do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Respectfully submitted,



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